

## PHILANTHUS SANBORNII CRESSON AS A PREDATOR ON HONEYBEES

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G. E. Bohart has recently described a remarkable instance of a *Philanthus flavifrons* Cresson killing honeybees at the entrance of a hive (1954, Proc. Ent. Soc. Wash., 56: 26). This is the first recorded observation of a *Philanthus* attacking honeybees in this country, although the European *P. triangulum* (Fabr.) is well known as a predator on honeybees, which it captures on flowers.

In the course of studies on solitary wasps at Little Gobi Desert, Pottawatomie Co., Kansas, during the past two summers, I have on several occasions seen *Philanthus sanbornii* Cresson provisioning its nest with honeybees. Three were actually captured with honeybees (author's note numbers 125, 324, and 415A) and several others were observed with them. Other bees are also used, though apparently less commonly; no. 330 was captured with the small halictid *Lasioglossum forbesii* (Robertson) and no. 434 with the larger green halictid *Agapostemon radiatus* (Say) [det. K. V. Krombein].

The bees are carried in flight by the wasp, being held beneath the body tightly by the legs. Occasionally the wasp lands on the earth one or more times enroute to the nest. The nest entrance is apparently never closed and the wasp flies more or less directly into the entrance with its prey. Several nests were marked and two were dug out, but unsuccessfully. One of these, a tortuous, nearly vertical tunnel, was followed for 23 inches without locating a cell. There was no definite "colony" of these wasps, the nests being widely separated and scattered over a strip of sand about 50 feet long. None of the nests were in open sand, but in grassy places, often at the base of a clump of grass. A small mound of earth surrounds the nest opening.

No observations were made on the capture and stinging of the bees, but it seems very probable that they were taken on flowers. *Philanthus sanbornii* is a rather large member of its genus, and is well able to handle a honeybee in flight and in its burrow. Probably it is quite unselective of its prey, but in this area was finding honeybees more readily available than wild bees. A nesting of *sanbornii* near an apiary might produce some interesting results.